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Antifragile: Things That Gain From Disorder and *To Save Everything, Click Here: The Folly of Technological Solutionism*: An Analysis and Exploration of Themes

In *Antifragile: Things That Gain From Disorder*, Nassim Taleb explains why, instead of creating resilient systems in our society, we should instead focus on creating antifragile systems. He claims, "We have been fragilizing the economy, our health, political life, education, almost everything…by suppressing randomness and volatility" (Taleb 5). With the systems that we have in place currently, and by underestimating the likelihood of "Black Swan events," we actually only end up causing detriment to ourselves. A Black Swan event, as termed by Taleb, is one in which comes as a surprise and has a significant impact on society. The theory hypothesizes that antifragility would allow us to grow in the face of Black Swans. As an abstraction, Taleb makes a valid point, as we see evidence of this in our society today.

As an example of the failure of the fragile, top-down resilient systems that exist in our society at present, take the idea of the over prescription of antibiotics. It seems ever common now to go see a physician at the slightest sign of the common cold. As we anticipate, the doctor will likely prescribe an antibiotic so the patient can be healthy again in three days, rather than waiting seven or so days for the body to naturally fight off the virus on its own. In the meantime what we have done, however, is made that particular strain of the virus build resistance to the antibiotics. The virus will mutate and become a stronger strain. The more exposure to antibiotics, the stronger and more resistant these strains become. The fear that some have is that eventually, by overusing antibiotics, we will have created strains of viruses so strong and ones that have built up such an antibiotic resistance that we will not have any antibiotics powerful enough to fight off a particularly potent strain and what will ensue is an unstoppable pandemic. Is it truly worth it to be back in good

health a few days sooner if in the meantime we could be creating a monster of antibiotic resistance?

The concept of overusing antibiotics is a microcosm of Taleb's notion of fragility that he claims is harming us as a society. His claim that while trying to help ourselves, we often are only hurting ourselves (5) can be seen precisely in the manner in which physicians over prescribe antibiotics. Taleb's theory proves accurate—we overestimate our abilities to know what is going to happen and thus, we believe that we can be in control by creating resilient systems. As with the antibiotics paradigm though, it should be clear that we may not have the kind of control that we think we do because there are almost always unanticipated consequences. Taleb asserts that we need to create antifragility— that it is, in fact, a good thing—because it allows growth from the shocks, disorder, and stressors that are inevitable. Indeed, we spend so much time attempting to control for events that are uncontrollable, when all the while we may very well be making things worse.

The stock market is a another viable example of a system in our society that we have made fragile by attempting to assert too much control. We suffered the tragic result of such fragility when the Great Depression took hold with the crash of the stock market on Black Tuesday. Taleb is justified in claiming that humans—even medical professionals with doctoral degrees or experienced and knowledgeable economists—cannot always know the unintended consequences. In attempting to control every aspect of our environment to prevent Black Swan events, we create fragility, which inevitably causes harm.

One aspect of human nature that poses some sort of threat to Taleb's antifragility argument, though, is the innate tendency for humans to organize and control our environment. Humans have a natural propensity and urge to assert our control over the world around us. How do we mitigate that urge? How can we expect people to accept randomness and disorder? How do we expect someone whose loved one is dying a long, slow death from stage 4 cancer not to beg the doctors to try every last possibility—no matter how extreme—to save her? And if she does die, how can we expect the family to accept that she died unnecessarily and for seemingly no good reason? Why would we settle for waiting seven days for a cold to pass when we could take an antibiotic and be back to good health in

just three days? This, I think, is something unique to the human experience. Humans have a trajectory that causes us to constantly improve and evolve, unlike animals that seemingly accept nature as it is, responding to stimuli in their environment to maintain the status quo. Life within the human realm is more subjective than Taleb allows for. His theoretical framework on creating antifragile systems within our society takes a bit of an objective stance. As subjective beings, is it not in our nature to constantly want to improve, create, innovate, and advance technology to better our lives? If this is the case, then creating fragile systems in our society appears to be inevitable. Taleb is correct in that we, as humans, are limited by our knowledge of the unintended consequences that come along with innovation and building new things. However, Taleb also asserts that risk is good, necessary even. Should we not take risks, then, in order to achieve greatness, regardless of the outcomes? Taleb's argument becomes a bit contradictory here.

It should be noted that there are indeed certain benefits to be attained from disorder, and some amount of disorder is necessary for existence. However, there must be a certain amount of control in the world, too. Would not too much antifragility be as adverse as too much fragility? Like all things in life, a certain balance is necessary. While creating too much fragility by attempting to assert our control over everything in the world is harmful, we cannot prevent human nature from having the urge to control and micromanage our environment in order to achieve better though we may occasionally encounter negative effects. Taleb is much too objective about the concept. He argues that simple is better. While in theory this may seem like a fair assertion, in reality, human life is not very simple. When it comes down to it, human life is fragile, and there does not seem to be any way to escape that fact. Taleb puts forth noteworthy notions, but perhaps they are better left as theory alone. It seems that in practice, antifragility is much more difficult to obtain than Taleb suggests through his theories. Not to mention, Taleb becomes a bit hypocritical in that he claims to know the formulas to remedy the fragility of the world, while simultaneously asserting that humans cannot possibly have the knowledge to understand the impact of our actions. While Taleb is correct about some things, like the fact that humans cannot account for these

unintended consequences, such contradictions and excessive objectivity make it difficult to buy into his theory for antifragilizing the world.

Similarly to Taleb's theories regarding human nature and the ways in which our often flawed thought processes and ineffectual systems operate, Evgeny Morozov discusses the detriment humans often bring about by way of technology. In his book, *To Save Everything, Click Here: The Folly of Technological Solutionism*, Morozov explains the pitfalls in thinking that using technology to improve everything, rather than innovation itself, is the solution to today's "problems," which he also claims may not even be actual problems. He asserts that the solutions to these "problems" we face today actually end up creating more and entirely different problems because of the ways in which solutionists go about rectifying them. Morozov also claims that what is problematic with solutionism is that it is quick to search for an answer before the questions are fully asked or explored. Morozov gives many examples as to why solutionism is chock-full of follies. And for the most part he is correct in his argument, for we can see this in a number of different realms today.

A very modern and perhaps relatable example that can be seen in today's culture is the Apple iPhone. It seems that not long after one version of the iPhone is released, we hear about the beginnings of the next version. Even the biggest Apple fan will likely say that while undoubtedly an "in vogue" phone, it has its glitches and complications. Of course, there are bound to be technological flaws in a phone that is so rapidly created and manufactured so it can make its way into the mainstream market and into the hands of the public as quickly as possible. Rather than making a better, innovative, and well-made smartphone, technologists "fix" these problems by improving upon what we already have. Allegedly, Apple spends more money on legal fees in order to make sure their patents are protected and that they remain at the forefront of the "smartphone war" than they do on research and development. Instead of creating the next (and nearly identical) version of the iPhone, why don't the brilliant tech minds at Apple spend their time and money investing in new technology, perhaps something innovative? We do not see this happening because Apple has fallen into the pitfall that is at the heart of Morozov's argument—technological solutionism. But is the new iPhone really benefitting us as a society more so than research

and development of new, innovative technology? Probably not, yet millions of people will rush to Apple stores or their cellular provider to buy the newest version upon its release. We, as a society, encourage technological solutionism with acts like this. We are thinking about technology in the wrong way.

Furthermore, as Morozov argues, we treat the Internet as a creed to live by, almost as if by worship of an omnipotent higher power—an idea he terms "internet centrism" (16). Again Morozov's argument is evidenced in the way that, although we may be blinded and blissfully unaware of it, far too many individuals in the 21st century live and base their lives around the Internet, treating technology as infallible and flawless. How often is it that when we want to know a piece of information, the first thing we do is type in the Google search bar? Collectively we hold the mindset that information found on the Internet must be accurate. This is the Internet—it can't be wrong, right? This thinking is precisely the pitfall that Morozov discusses. We see it everyday and throughout all aspects of our lives. Technology has become so pervasive in our society with laptops, smartphones, tablets, etc., that it often serves as our "go to," a be-all and end-all solution. Unfortunately, however, this rarely proves to be an actual solution because technology often creates more problems than were present in the first place.

The creation of more problems through technological solutionism can be seen more specifically in the way that we use social media. Social media platforms, such as Facebook, Tumblr, Twitter, Instagram, and Skype, seem like a convenient and suitable way to connect and share with others. However, these social media platforms do not come without problems. Some of the more serious technology issues we face in our society today are cyberbullying and privacy issues regarding personal information and intellectual property. These are issues that have been solely created within the context of the Internet. In this way, it is clear that technology is not absent of pitfalls though it may bring promises. This example shows that technology is not created in a vacuum—it falls victim to the culture in which it is created. We often ignore this fact in our search for new solutions.

Morozov's argument, that we should use technology as a tool or a means rather than an end or a solution, is a valid one. When technology is used as if a solution to everything,

we face the danger of not addressing the underlying problems. Much like the concept of creating safer cars that, in turn, actually encourage us to make unwise decisions while driving, when we think we are "solving" the problem, we may in fact only be creating newer, more complex problems instead. Using technology as a solution is a slippery slope because the more "solutions" we come up with, the more issues that arise from those solutions, forcing us to create even more solutions to deal with all the problems that could have been avoided in the first place.

With the pervasiveness of the Internet and other technologies we have today and the rapid advancement of such technology, I think Morozov's assertions about the folly of technological solutionism are clearly evidenced through numerous examples. We see this phenomenon in all realms of society because of the time period in which we are currently living. The "age of technology," to which the 21st century is sometimes referred, is a result of our tendency to want to "solve" all of our problems with technology. While in some ways good, it is foolish to think that technology is infallible and does not harm us as a society as Morozov contends.

A common idea that is expressed in both *Antifragile: Things That Gain From Disorder* and *To Save Everything, Click Here: The Folly of Technological Solutionism* is the notion that humans seemingly have an undeniable desire to innovate, evolve, and build new things. Taleb focuses on the fragile systems that we create in our society while Morozov focuses on the technological solutionism that we have become accustomed to in our society. The common theme is more implicit in Taleb's theory in *Antifragile* while in *To Save Everything, Click Here*, it is more centrally focused upon and explicitly illustrated by Morozov. Taleb's focus is on criticizing the need that humans have for asserting too much control on the world around us by building new things without having the knowledge or the power to understand all of the unintended consequences that come along with it. Similarly, Morozov focuses on the human desire to "fix" everything with new technology. Instead of focusing on creating better things to begin with, we think we can improve upon and solve our "problems" with a new technology. The common thread in both books seems to be that humans demonstrate some sort of trajectory that urges us to be in constant search of the "next big thing," so to speak.

In other words, it might be a reasonable conclusion to assert that humans are a species of evolution, never content with the status quo. Both authors seem to share a similar view of human nature and the inherent flaws in our thinking and planning for the future.

Through each of their arguments, Taleb and Morozov allude to the notion that while humans have a tendency and desire to build new things and constantly improve every aspect of our world, we are limited by our knowledge. At the end of the day, humans are still humans, subject to flaws and mistakes. Mistakes, which, according to both authors, we continue to make because we become absorbed and blinded by the promises of tomorrow. The principle implications of each book are that although, as a society, the desire to improve and innovate is generally beneficial and positive, the outcome does not always prove to be so because human knowledge is limited and sometimes flawed. We cannot possibly know or account for all the consequences that ensue from our actions. It is obvious through both arguments that humans have a greater impact on the world than we aware of sometimes. This unawareness often leads us into trouble and we generate things like fragile systems or technological solutionism—mechanisms that Taleb and Morozov argue are harming us more than helping us.

Taleb and Morozov, while differing slightly in the presentation of the problem, seem to be in agreement on one thing: if we want the future to be as propitious and promising as some of the idealists imagine it to be, rather than dooming and bleak, we have to change our thinking about the future. Taleb asserts that antifragility and allowing for the unexpected is the answer; Morozov claims that we should focus on innovating and creating better products rather than attempting to improve what we already have and defaulting to quick "fixes." No matter how "smart" we may think we are, and no matter how many intellectuals and technologists claim to know the answers, we are still often wrong. The overarching message to mankind that underpins both books is to reassess how we think about technology and the future. The solutions we have now, while perhaps effective in the short-term, may not prove to be so beneficial in the long run. Humankind, while allowing for the type of creativity and subjectivity that makes us a unique species, has its own limitations, which we must both acknowledge and accept in order to ensure a successful and favorable future.

Works Cited

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